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Final Report of the Navy Battle Force Alignment (NBFA) Initiative

The initiative to align activities to deliver an interoperable Navy Battle Force

by NBFA Process Project Team (PPT)

Agenda

- Introduction
- Background
- Problems
- Process
- NAVSEA leadership guidance
- Next steps

Objective of NBFA

Message by Mr. Pete Brown (NAVSEA 00B) of DTG 041115Z

"Facilitate the establishment of a Navy-wide Battle Group Interoperability/Fleet Modernization Program/Acquisition Change Control policy and process that delivers fully supported/integrated warfighting improvements to the fleet."

The NBFA PPT charter was signed 1 March 1999 by RADM Combs, NAVSEA 04 and Mr. Joe Cipriano, NAVSEA 05B

NBFA PPT Focus

- **NBFA vision**
  - Modernize the battle force as an interoperable system
- **NBFA PPT short term objective**
  - Ensure that baseline requirements identified by the D-30 process are installed and operational by 6 months prior to deployment
  - Implementation requiring months
- **NBFA long term objectives**
  - Opportunities for improvement identified by the NBFA PPT that require significant policy or process change
  - Implementation requiring months to years

NBFA PPT Membership

	Code	Role
Guidance	NAVSEA 04	Co-sponsor
	NAVSEA 05	Co-sponsor
	NAVSEA 04	Advocate
	NAVSEA PAIG	PAIG Liaison
Problem Analysis Team	CINCLANTFLT	FMP Manager
	OPNAV N86	Resource Sponsor
	PEO EXW	Systems Engineer
	CINCPACFLT	Warfighter / BGI Sys Eng
Process Analysis Team	NAVSEA PMS392	SPM/FMP Manager
	NAVAIR	Systems Engineer
	NAVSEA 04	Logistician
	PEO TSC	SPM/FMP Manager
	NAVAIR	Configuration Manager
	NAVSEA 04M	Industrial Engineer
Support Team	NAVSEA 05	Systems Engineer / BGI Sys Eng
	CINCPACFLT	Systems Engineer / BGI Sys Eng
	NSLCLANT/CIO	Info Systems Analyst

***Team Leader**

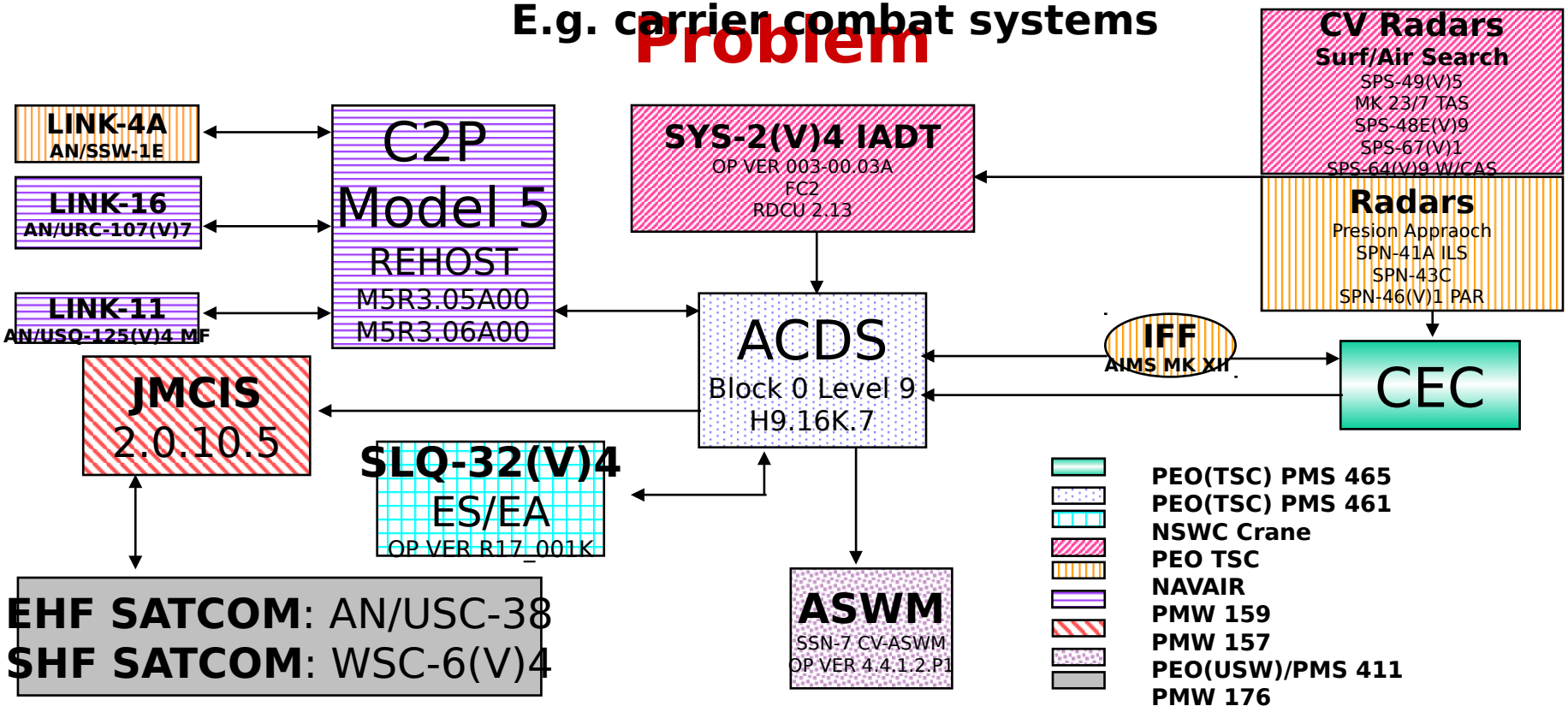
What does the Fleet want?

Today's Environment

- **Adapting stovepipe processes into a network centric environment**
  - –PPBS is a multi-year process for accountability and stability
  - –FMP is a process for ***SHIP*** improvements that increases its capability or reliability to perform its assigned mission
  - –Program managers, OEMs, SPMs and PEOs are ***system***, ***equipment*** and ***platform*** focused
- **Declining resource and staffing levels**
  - –600 ships>>>300 ships
  - –INFRASTRUCTURE>>>infrastructure
  - –Increasingly difficult to accomplish mission
- **Changing Threat**
  - –Complex, dynamic threat environment
- **Quality of Life / Retention Issues**
  - –Reduction of sailor's workload (IDTC, Capital Investment for Labor Initiativ
- **"Change Churn"**
  - –Many parallel efforts to improve the same or related problems
  - –We're changing changes before they've been fully implemented

Representative Interoperability Problem

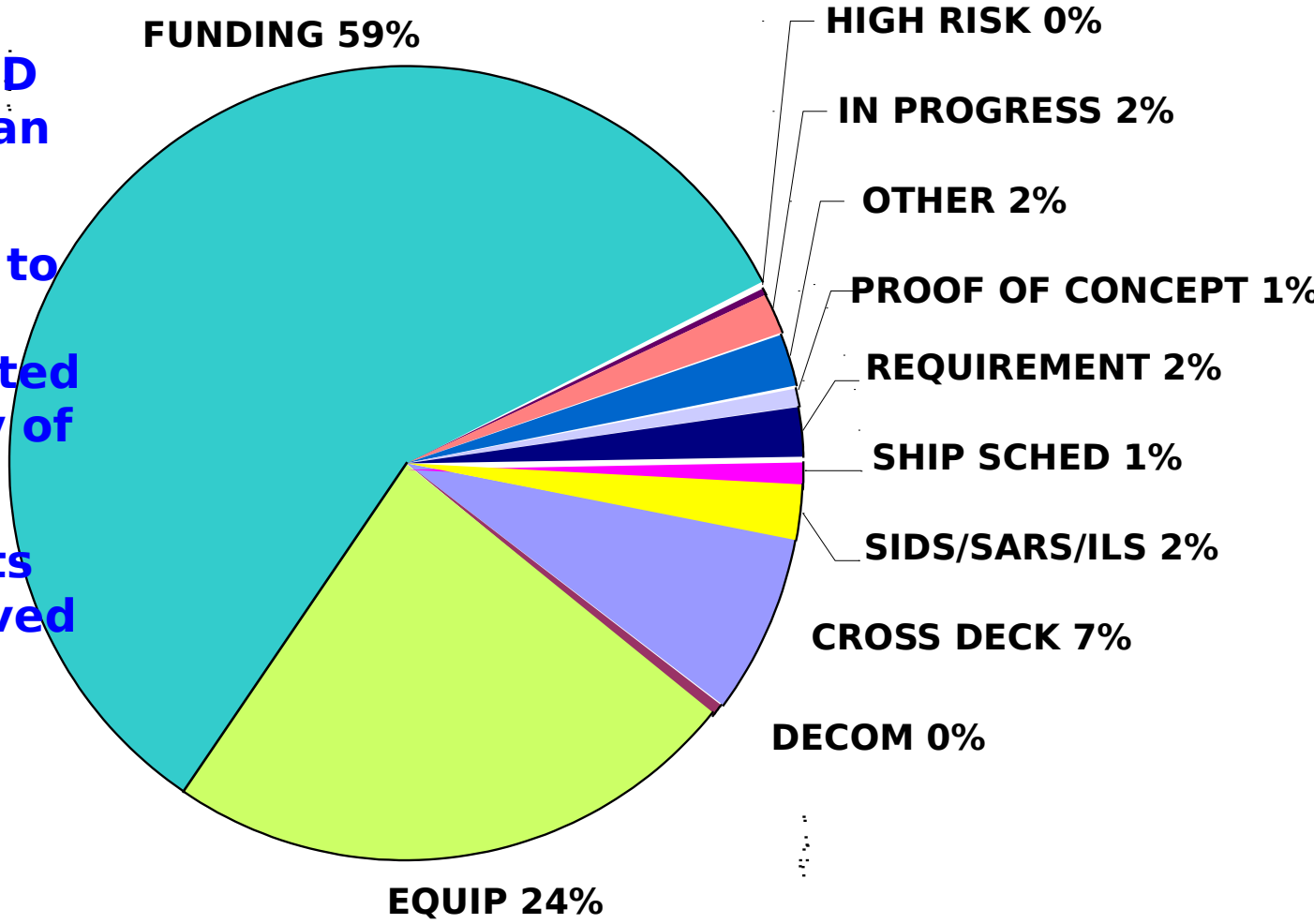
E.g. carrier combat systems



"We can not overstate the difficulty in understanding program risks related to development when portions of the system modifications are dispersed among different program management offices, contractors, and cost accounts." Philip Coyle, DOT&E

Representative TCD Waiver Problem Analysis

- 236 PACFLT TCD Waivers since Jan 98
- Issues related to availability of funding accounted for the majority of waivers
- Only 7 requests were disapproved



Problem/Root Cause Analysis

Problem Focus

- **Failure to meet requirements**
  - Post TCD installations
  - Interoperability failures

Primary Root Causes

- **No master plan**
  - Lack of a common BF architectural vision
  - Resources not tied to capability driven requirements
- **Unplanned/Emergent requirements**
  - PPBS/POM process reaction/cycle time
  - Requirements that exceed resources
  - IT-21 revolutionary, not evolutionary C4I modernization
- **System/platform focused policy, process and infrastructure**
  - Stovepiped resource sponsors, PMs and contractors
- **Lack of discipline in adhering to modernization policies and procedures**

Summary of current and desired states

	As Is	To be
Planning & Installation	Starts too late for installation at single ship availability	Early planning focused on single ship availability during D-16 to D-12
Resources / Requirements	Navy Budget process slow to react & focused on ship/ platform	Navy Budget process responsive & focused on capability
Battle Force Architecture	Under development by SEA 05 and SPAWAR 05	Common architectural vision guides BF evolution
Interoperability Testing	Ashore infrastructure under development by SEA 05	Interoperability testing ashore before fleet installation
Configuration Management	CM at the system and ship level	Disciplined configuration management at the BF level

Summary of Key Integrated Process Activities

Engineered Decisions
"When to say No."

Managed Change
Configuration Control / Risk Analysis

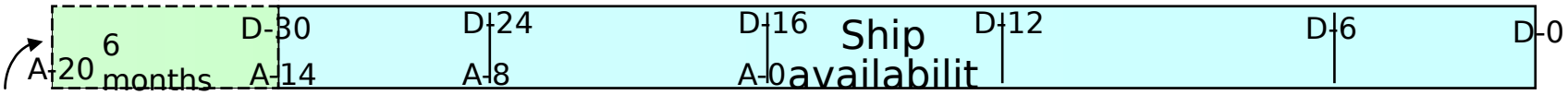
Requirement Driven Resources

BF CCB - Exception Process
Emergent Rqmts - Tech Insertion
•Consider Risks / Benefits / Impacts
(Interoperability, Training)

•Installation Efficiencies
• Resource Savings

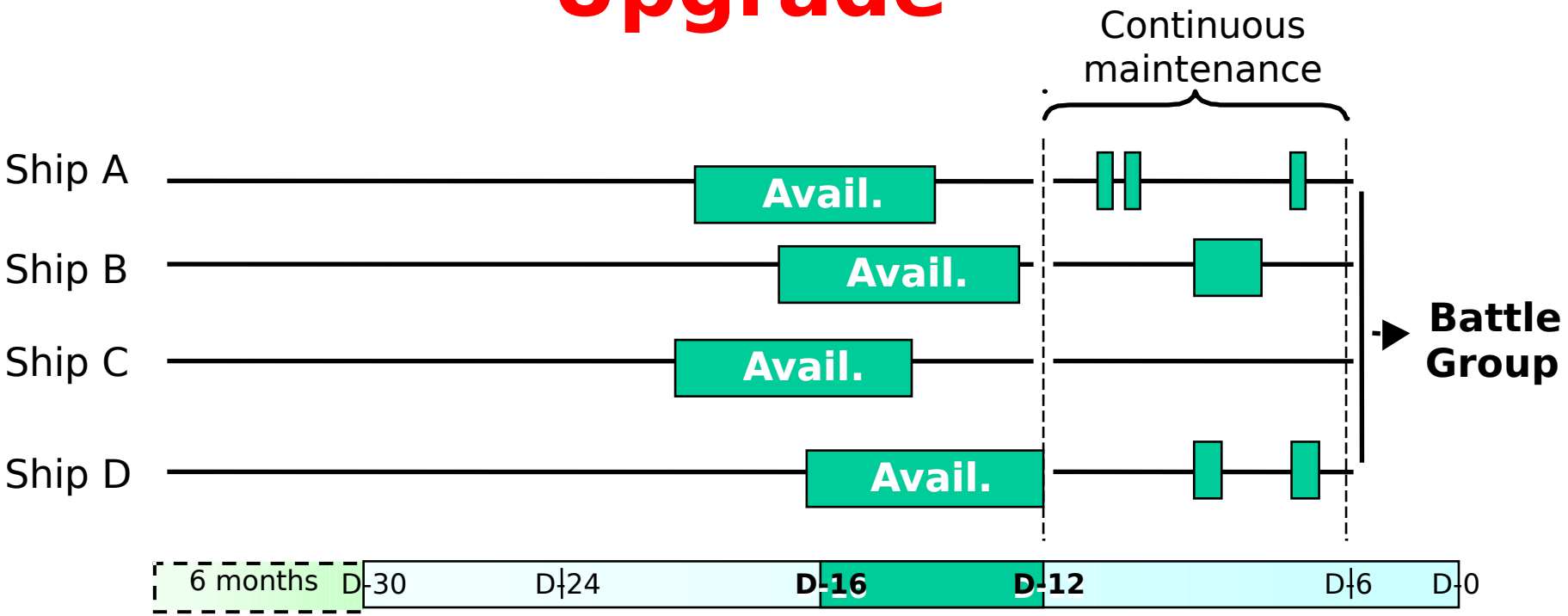
Advanced Planning
- Requirements
- Planning
- Budgeting

Single Availability
- Integrated Design
- Consolidated Installation
- Management Coordination & Integration
- Preserves IDTC (D-12 - D-6)
- Supports Quality of Life



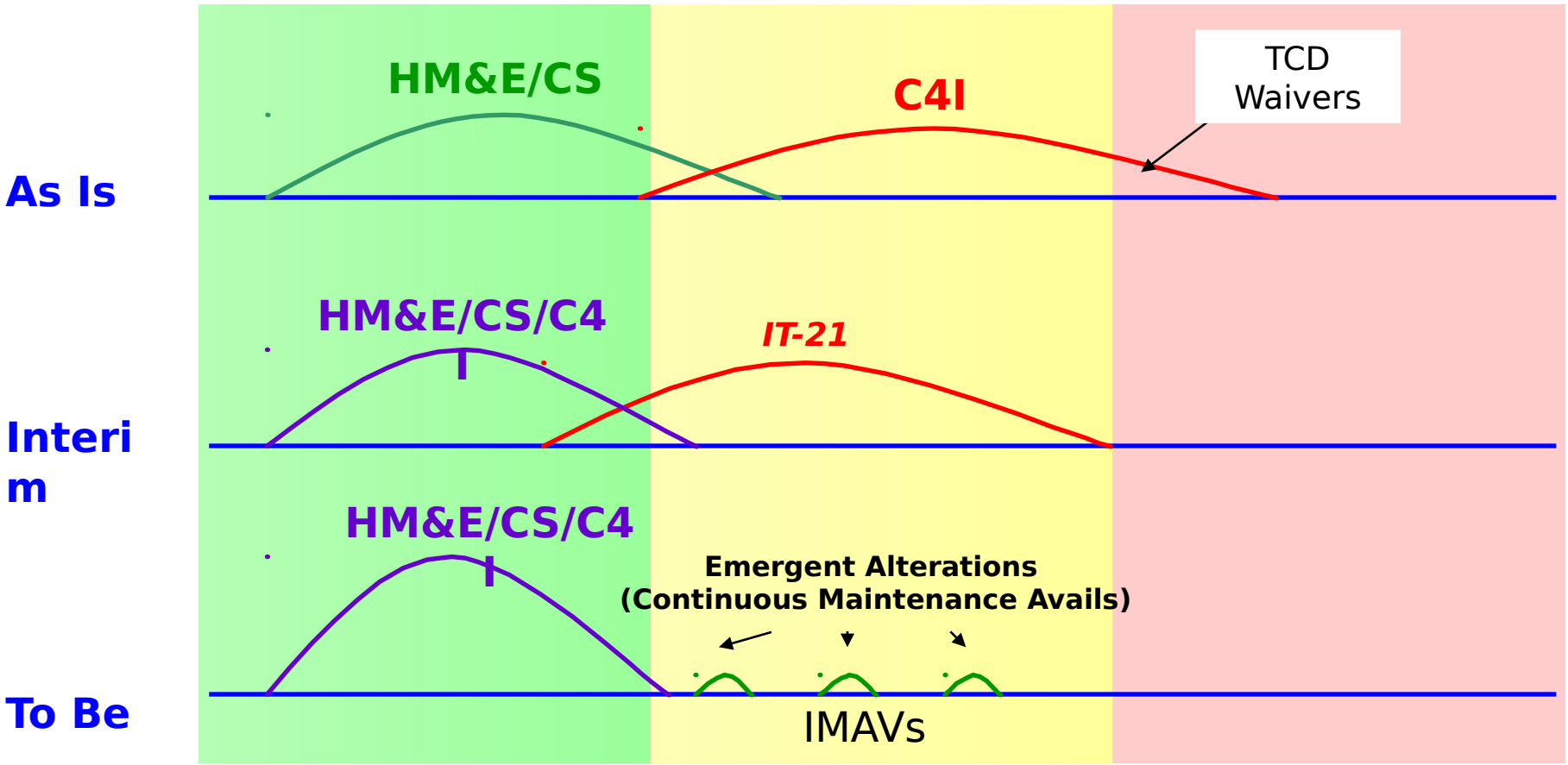
Projected baseline configuration from earlier BG at D-24

Notional Battle Group Upgrade



- **Single availability for HM+E, CS, C4I for projected configuration**
- **Emergent ALTs installed via managed change process during brief upkeep periods (continuous maintenance)**

Phased Implementation of Single Availability



Implementation Assignments

Alignment of Ongoing Initiatives

- BF CCB / BF Change Management — SEA 05
- Emergent Alteration Process — FMP D-30 WG
- Alteration Risk Assessment — SEA 05
- D-30 / FMP Integration — FMP D-30 WG
- JCF / SAR / SID Streamlining — FMP JCF/SAR WG

New Actions - Near Term

- BF Architecture Roadmap — SEA 05
- C4I Funding Augmentation — OPNAV/SPAWAR
- Transition Team — SEA 04
- BFI Process Metrics — TT
- BF Baseline Configuration by Capability — SEA 05
- BFI Administrative Training — SEA 04/05 WG
- Single Ship Availability Planning — FMP WG

New Actions - Long Term

- Navy Budget process — New PPT (SEA 01)
- Fleet BFI Training — New PPT (OPNAV)
- Acquisition of BF Capabilities — New PPT (PEO TSC)
- BFI IT Support — 00I

PPT Recommendations

- **Realign / Reaffirm Roles and Responsibilities**
  - Fleet: Requirements expressed as BF capabilities (IWAR)
  - OPNAV: Integrated plans and resources to provide required BF capabilities
  - SYSCOMs/PEOs: Interoperable systems/platforms designed, built, tested and installed in a timely fashion to provide required BF capabilities
- **Common Architectural Vision of the Battle Force**
  - Collaborative development led by SEA 05

- **Disciplined Installation of Required Capabilities**
  - Effective BF change management with risk assessment

  - Emergent requirements (inc. tech insertion) under managed change process
- **Metrics**
  - Facilitate continual process improvement

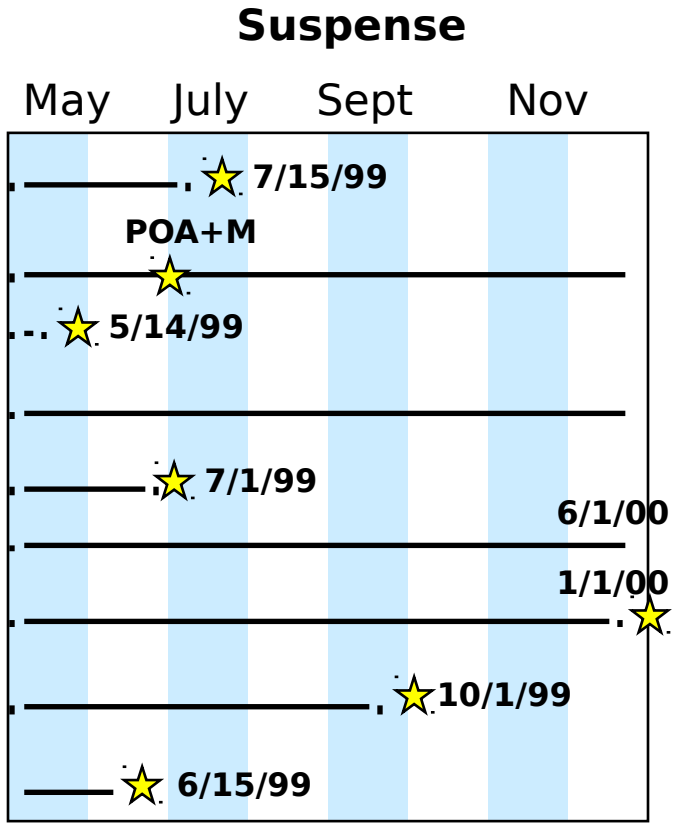
Refocus processes and infrastructure to deliver
INTEROPERABLE BATTLE FORCES

PPT Recommendations

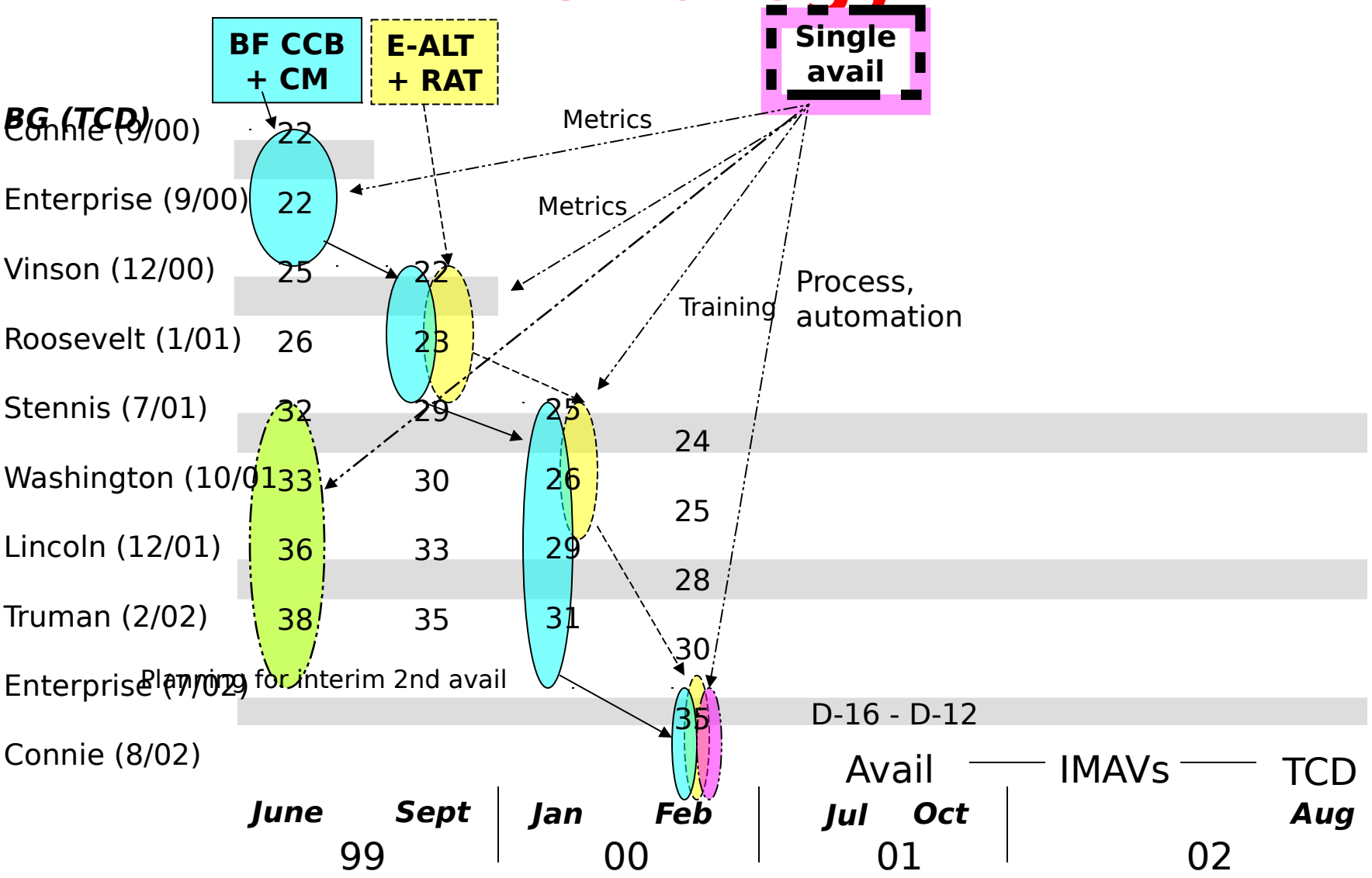
- **Flag/SES NBFA Interoperability Implementation Board** (NBFA IIB)
  - Establishment for Navy-wide approval of NBFA recommendations
- **Establish Transition Team**
- **Individual near-term taskings**

Initiative	04	05	OPNAV
BF CCB and CM policy	X	L	
BF architecture		L	
$ for next 5 BGs			L
Trans Team + BF metrics	L	X	
BF capability baseline		L	
Administrative training	L		
Single ship avail planning	L		
Emergent ALT process	L		
BF Risk Assessment Tool	X	L	

Legend: L = lead, X = participation



IOC FOC Transition Strategy



NAVSEA Leadership Agreed with Implementation Assignments

Alignment of Ongoing Initiatives

• BF CCB / BF Change Management	SEA 05
• Emergent Alteration Process	FMP D-30 WG
• Alteration Risk Assessment	SEA 05
• D-30 / FMP Integration	FMP D-30 WG
• JCF / SAR / SID Streamlining	FMP JCF/SAR WG

New Actions - Near Term

• BF Architecture Roadmap	SEA 05
• C4I Funding Augmentation	OPNAV/SPAWAR
• Transition Team	SEA 04
• BFI Process Metrics	TT
• BF Baseline Configuration by Capability	SEA 05
• BFI Administrative Training	SEA 04/05 WG
• Single Ship Availability Planning	FMP WG

New Actions - Long Term

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• BFI IT Support	00I

NAVSEA Leadership Response to PPT's Recommended Concepts

- **Agree with the pre-planning**
  - Do the early-planning (A-20) to target the single availability for all installations
- **Recommend an alternate end-state**
  - PPT: The emergent ALTs are installed in IMAV windows
  - Cross-Cut: The emergent ALTS are installed in a multi-week late avail for all ships concurrently

Near-term Schedule for Cross-cut Pilot

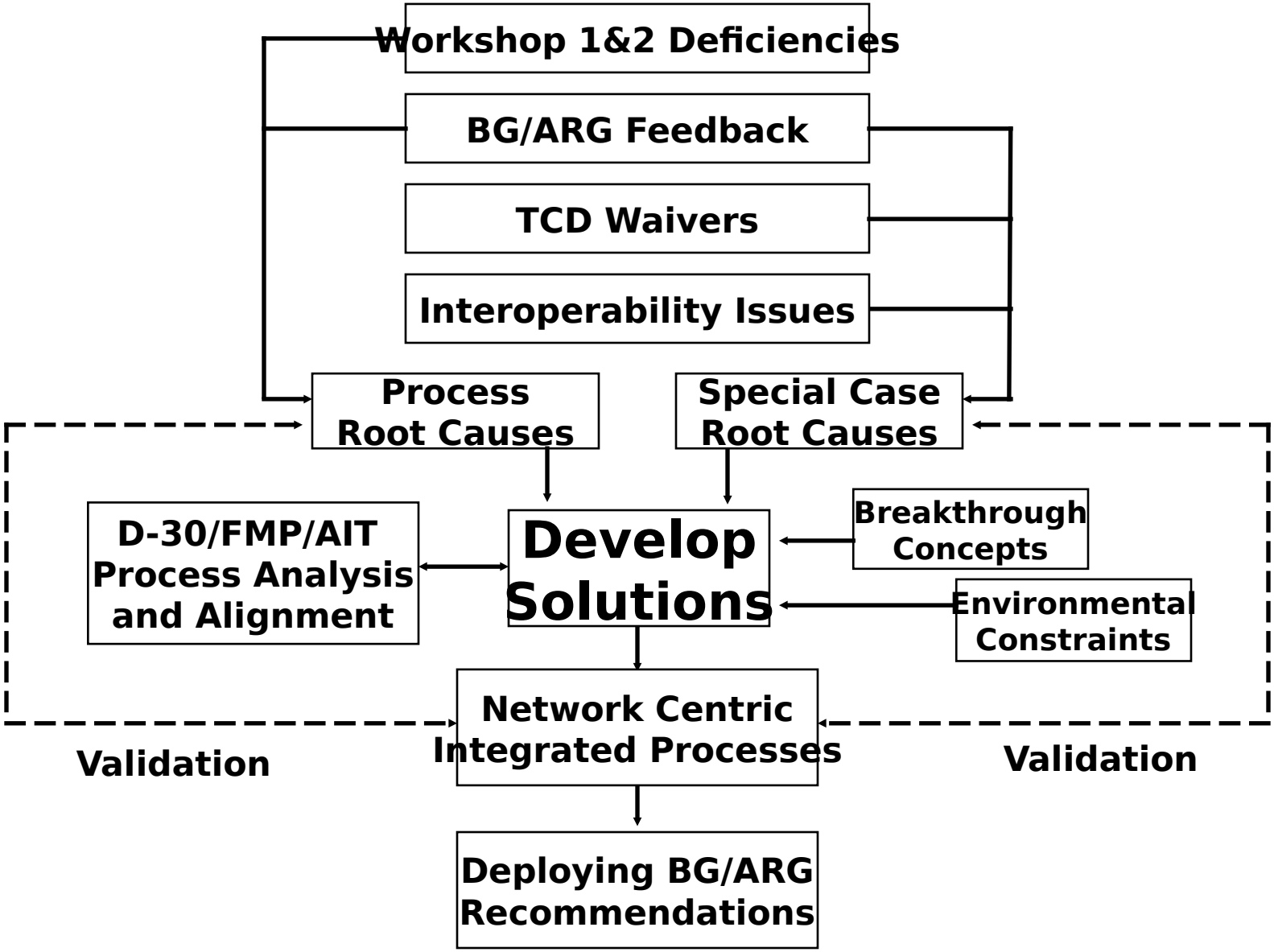
- 9 June - Share interim results with ADM Balisle
- 15 June - VTC pre-brief with ADM Balisle
- 21 June - VTC with key stakeholders
- early Sept - Readiness Assessment VTC
- 1 Oct - Kick-off LANT and PAC CCBs and Gatekeepers together

NBFA Coordination Requirements

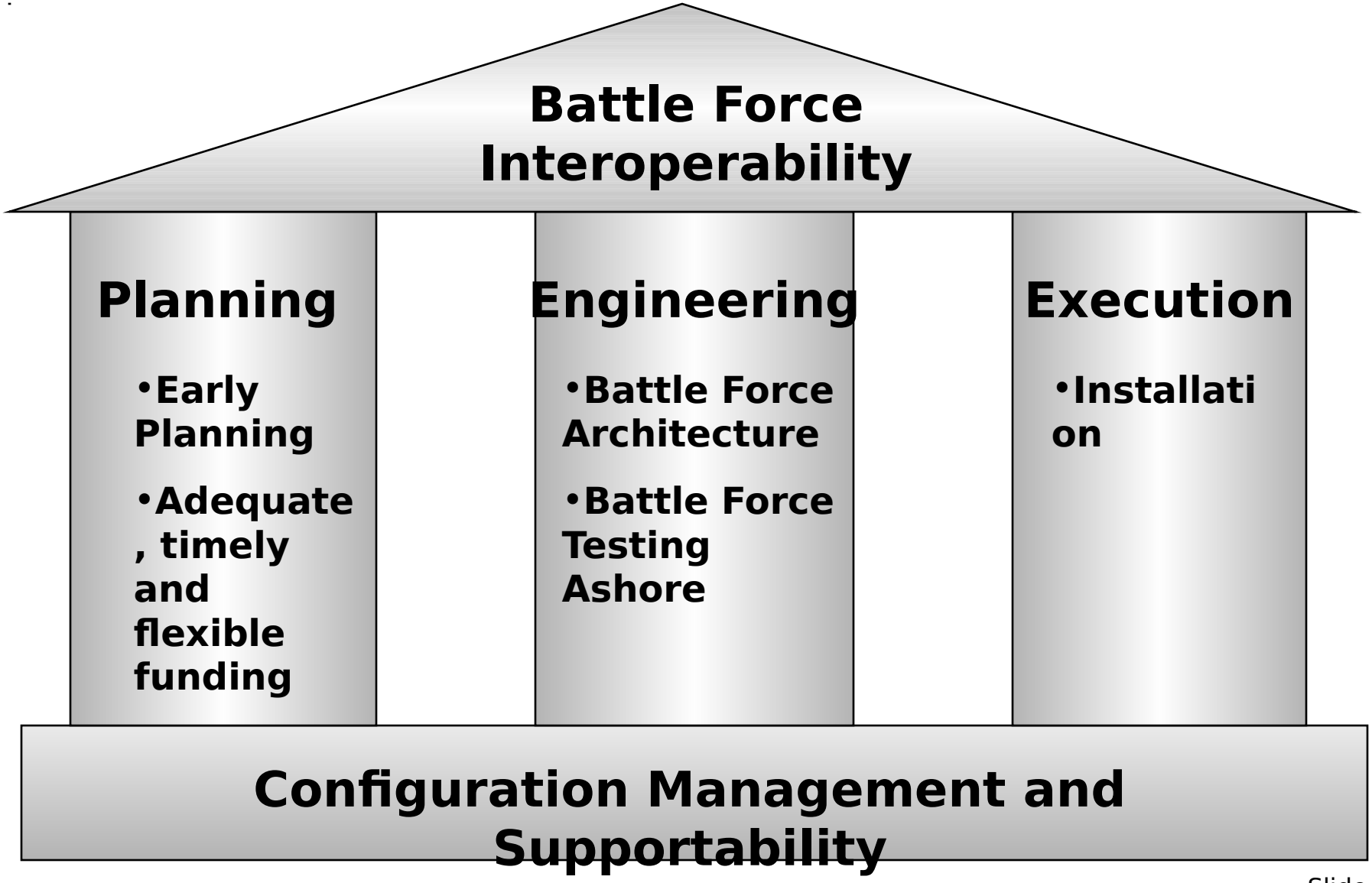
- **Interoperability Implementation Board (IIB)**
  - Ensure continuing consensus among stakeholders
  - Maintain mechanism to facilitate inter-activity implementation
  - Maintain momentum, keep executive attention focused

- **Transition Team (TT)**
  - Monitor implementation progress, report status to IIB
  - Manage the integration of recommended changes
  - Liaison with the line organizations to ensure implementation of the pilot ships program
  - Involved through FOC for each NBFA initiative

NBFA PPT Methodology



NBFA Issues


Battle Force Interoperability
Planning
•Early Planning
•Adequate, timely and flexible funding
Engineering
•Battle Force Architecture
•Battle Force Testing Ashore
Execution
•Installation
Configuration Management and Supportability

NBFA Issues: Early Planning

"As Is"

BF planning does not begin early enough to support installations during a single availability

"To Be"

Early BF planning supports installation of alterations during a single availability

Action

- **Accomplish advanced planning activities documented in proposed integrated process**
- **Develop a Exception alteration policy and process for emergent requirements and interoperability deficiency corrections**
- **Develop metrics, QA and feedback process for policy and process accountability, compliance and enforcement**
- **Develop a BF capability prioritization process consistent with IWARS**
- **Charter a team to develop a process for the acquisition community to produce interoperable platforms and systems**

NBFA Issues: Funding

"As Is"

PPBS is focused on platforms and systems and is slow to react

"To Be"

PPBS is focused on capability and is flexible and quick to react

Actions

- **Increase resources for DSA and advanced planning for C4I/IT-21 installs**
- **Fund planning yards to support BG planning and design**
- **POM for DSA and advanced planning costs**
- **Charter a PPT to improve PPBS flexibility to support interoperability**

NBFA Issues: Architecture

"As Is"

BF architectural documentation is under development

"To Be"

A BF roadmap and operational, systems and technical architecture are promulgated

Action

- **The proposed BF baseline configuration provided to the Fleet will include a description of the systems and capabilities planned for the Battle Force**
- **Develop a high level BF architectural roadmap to document current and planned BF capabilities.**
- **Draft a POA&M for preparation of complete BF architecture documentation including operational, system, and technical architectures. Adopt a "top down" approach to make high level documentation available in draft form**
- **Establish measures of effectiveness (MOE) and measures of performance (MOP) for BF interoperability testing**

NBFA Issues: Battleforce Testing

"As Is"

Integrated BF capability test plan and infrastructure are not yet in place to test the BF configuration ashore

"To Be"

Integrated BF capabilities are fully tested ashore to support installation in the fleet

Action

- **Develop a POA&M for the implementation of BF interoperability testing ashore (Distributed Engineering Plant) in a phased manner to permit limited testing in the near term.**
- **To ensure the availability of test facilities, consider the following:**
  - Increase the OP TEMPO at shore test facilities (e.g., third shift)
  - Augment shore test facilities with commercial test facilities
  - Modify acquisition contracts to include systems interoperability testing in a simulated BF environment
  - Use Reserve and Western Hemisphere ships as testing platforms
- **On the basis of BF architecture documentation, prepare a BF**

NBFA Issues: Configuration Management and Supportability

"As Is"

CM is still platform focused, BF CM has not been fully implemented

"To Be"

BF and platform CM work in concert to effectively manage both BF and platform configurations

Action

- **Accelerate development of BF CCB policy and procedures**
  - Only changes to correct interoperability deficiencies and safety will be considered after D-24, and all work will be completed no later than D-12 (except deficiency correction)
- **immediately Implement the BF CCB for all BGs/ARGs**
- **Develop and implement a risk assessment process and tool for BF baseline definition and for prescreening proposed alterations as part of the CM process**
- **Establish BF CM Workshop to educate all players in CM with interoperable systems**

NBFA Issues: Installation

"As Is"

Installations are occurring outside a single availability, even after TCD, and are negatively impacting BF preparations for deployment

"To Be"

Installations occur during a single availability, with emergent requirements the exception

Action

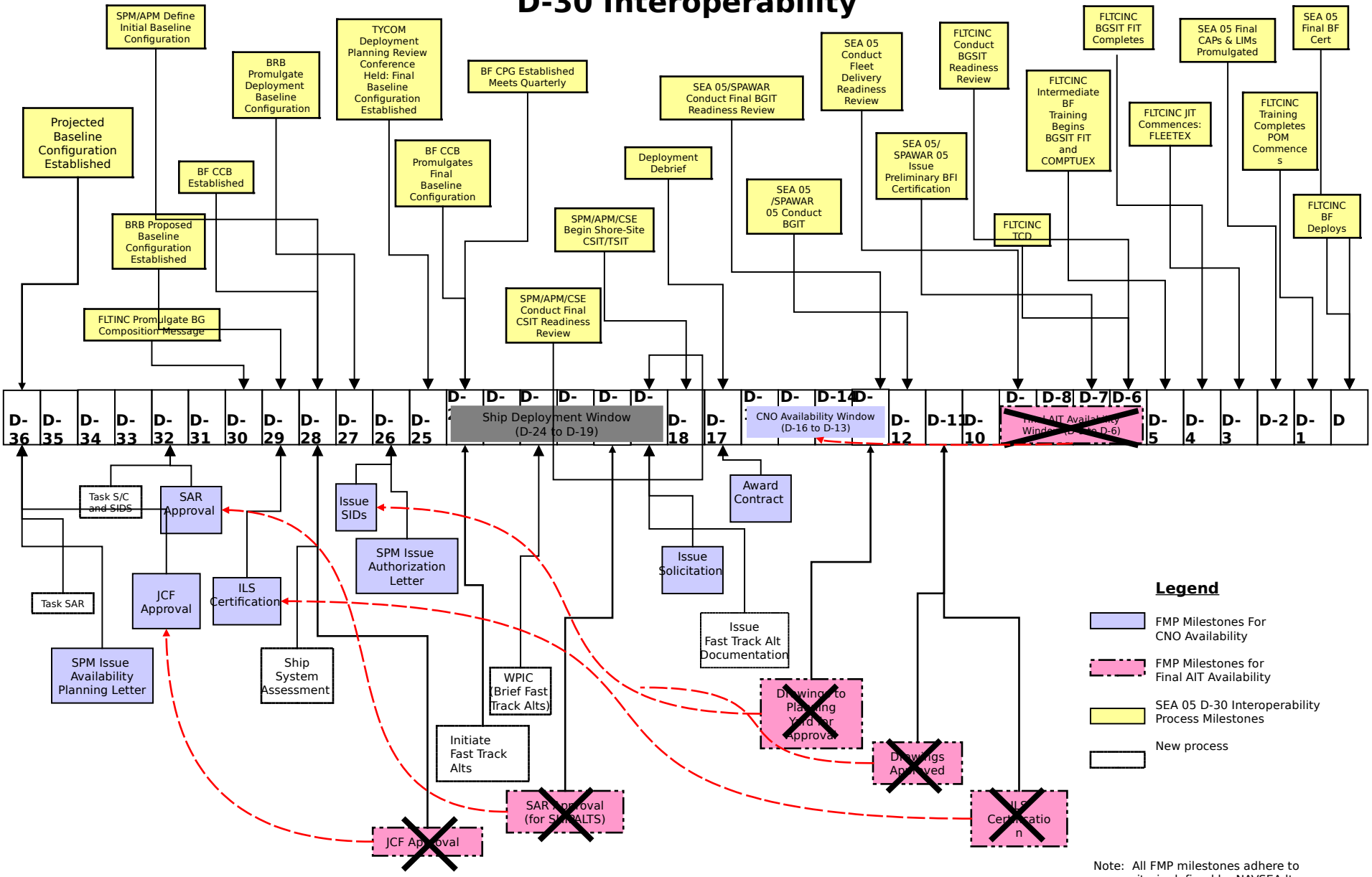
- **Plan for all installations during a single availability**
- **Installations of alterations which cannot be installed within a single availability will be coordinated by the Regional Maintenance Center / Business Office**

"To Be" Process Business Rules

- Single ship availability for all upgrades
- Configuration at D-36 is based upon the FMP and BF configuration for a BF, currently at D-24
- Implement an Exception ALT process for alterations identified at D-24
  - to quickly process emergent requirements that do not impact other systems
- Only changes to correct interoperability and safety deficiencies will be considered after D-24, and all work will be completed no later than D-12 (except interoperability and safety deficiency correction).
- Availability milestones reflect no later than dates for SRA or DSRA availabilities.

Proposed Interoperability and Modernization Mileston

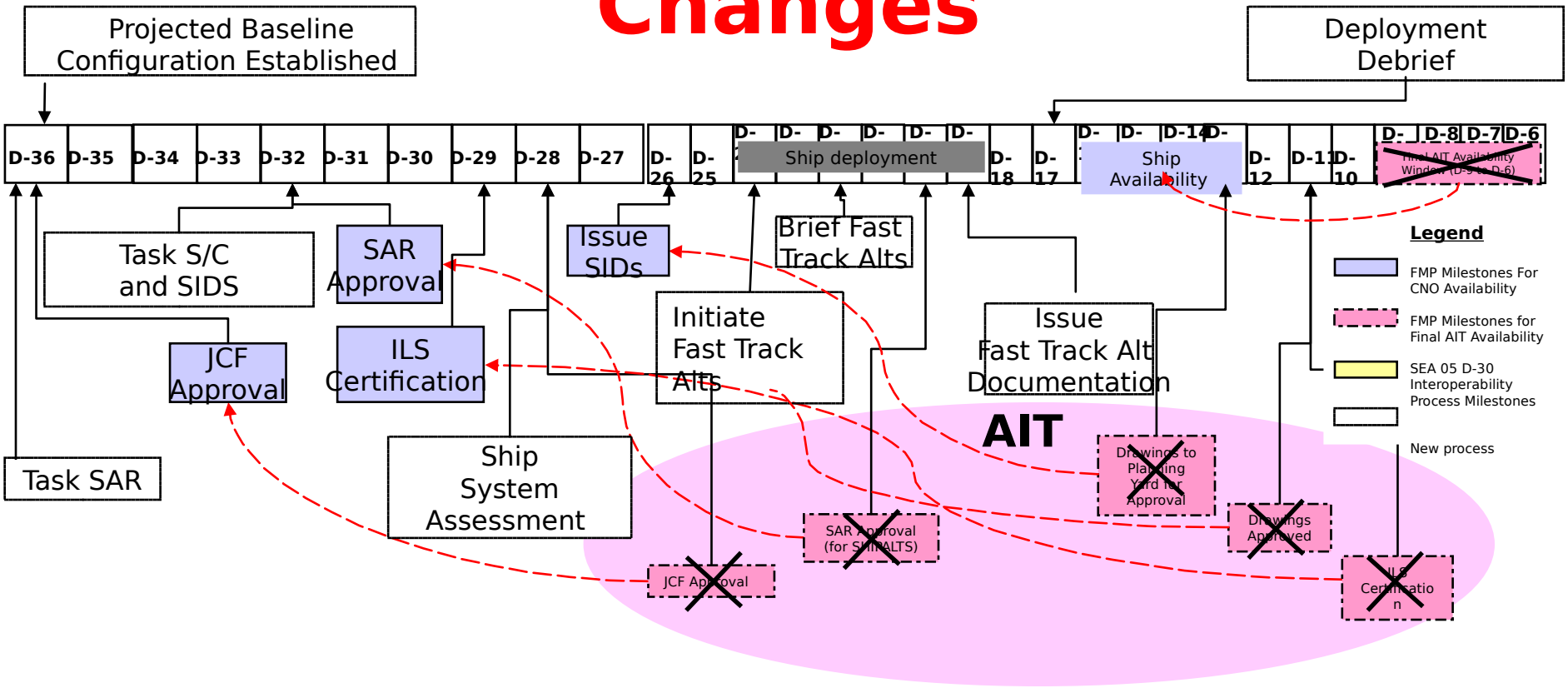
D-30 Interoperability


SPM/APM Define Initial Baseline Configuration
BRB Promulgate Deployment Baseline Configuration
TYCOM Deployment Planning Review Conference Held: Final Baseline Configuration Established
BF CPG Established Meets Quarterly
SEA 05/SPAWAR Conduct Final BGIT Readiness Review
SEA 05 Conduct Fleet Delivery Readiness Review
FLTCINC Conduct BGSIT Readiness Review
FLTCINC BGSIT FIT Completes
SEA 05 Final CAPs & LIMs Promulgated
SEA 05 Final BF Cert
Projected Baseline Configuration Established
BF CCB Established
BF CCB Promulgates Final Baseline Configuration
Deployment Debrief
SEA 05 /SPAWAR 05 Conduct BGIT
SEA 05/ SPAWAR 05 Issue Preliminary BFI Certification
FLTCINC Intermediate BF Training Begins BGSIT FIT and COMPTUEX
FLTCINC JIT Commences: FLEETEX
FLTCINC Training Completes POM Commence s
FLTCINC BF Deploys
BRB Proposed Baseline Configuration Established
SPM/APM/CSE Begin Shore-Site CSIT/TSIT
FLTCINC TCD
FLTINC Promulgate BG Composition Message
SPM/APM/CSE Conduct Final CSIT Readiness Review
D-36 D-35 D-34 D-33 D-32 D-31 D-30 D-29 D-28 D-27 D-26 D-25 D- D- D- D- D- D- D-18 D-17 D- D- D-14 D- D-12 D-11 D-10 D- D-8 D-7 D-6 D-5 D-4 D-3 D-2 D-1 D
Ship Deployment Window (D-24 to D-19)
CNO Availability Window (D-16 to D-13)
Task S/C and SIDS
SAR Approval
Issue SIDs
Award Contract
SPM Issue Authorization Letter
Issue Solicitation
Task SAR
JCF Approval
ILS Certification
Issue Fast Track Alt Documentation
SPM Issue Availability Planning Letter
Ship System Assessment
WPIC (Brief Fast Track Alts)
Initiate Fast Track Alts
Drawings Approved
JCF Approval
Legend
FMP Milestones For CNO Availability
FMP Milestones for Final AIT Availability
SEA 05 D-30 Interoperability Process Milestones
New process

Milestones For CNO Availability

Note: All FMP milestones adhere to criteria defined by NAVSEA ltr 4720 Ser 043/305 of 5 Nov 97

Summary of Process Changes



- AIT availability merged into a single ship availability
- AIT design product milestones incorporated into availability milestones
- Projected baseline configuration milestone added at D-36
- Added a prescreening process commencing at D-29 to assess risk associated with the addition of new BF upgrades
- Deployment debrief milestone added at D-17
- ***Still under discussion with SPAWAR***

Validation community (3/20 - 4/15)

NAVSEA

00B	Pete Brown	Deputy Director
01B	Bob Storey	Exec. Dir., Comptroller
02	CAPT Jaggard	Director
02B	Paul Buonaccorsi	Exec. Dir Exec. Director
03	Craig Hagedorn	Director
04	ADM Combs	Director
04	Bob Draim	Director
	Jeff Orner	Deputy Director
04M	Mike Petz	FMP Policy
	Pat Haney	FMP Policy
	Barbara Thomas	CM Policy
04L	Dave Noble	BGI Policy
05	Joe Cipriano	BGI Policy
	CAPT Ellison	System Engineer
	CDR Wilson	
	LCDR Benedict	
	Bill Douglas	BGI coordinator
05K	CDR Hudik	Systems Engineers
00IT	Staff meeting (8)	Deputy CIO
	Rose Digeronimo	
NSLC	Nate Fernandez	Director, LANT
	CAPT Hund	CO
	Dan Jensen	Director, PAC
NSWCIH	Mary Lacei	Exec. Director

SPAWAR

04	ADM Lengerich	Director, Install and Log
04F	CAPT Madsen	Systems Engineer
051	CAPT Rentz	Director, Afloat Installations

SPONSORS

N62	CDR Westphal	Resource sponsor
N869	CDR McCarthy	Resource sponsor
	LCDR Davidson	Resource sponsor

PEO

PEO TSC	45 People	Various
PEO EXW	Jess Atkins	Deputy Commander
PEO SUB	Pat Tamburino	Deputy Pgm. Exec Off
PEO SUB	Steve Bonwich	Executive Director

CINCPAC

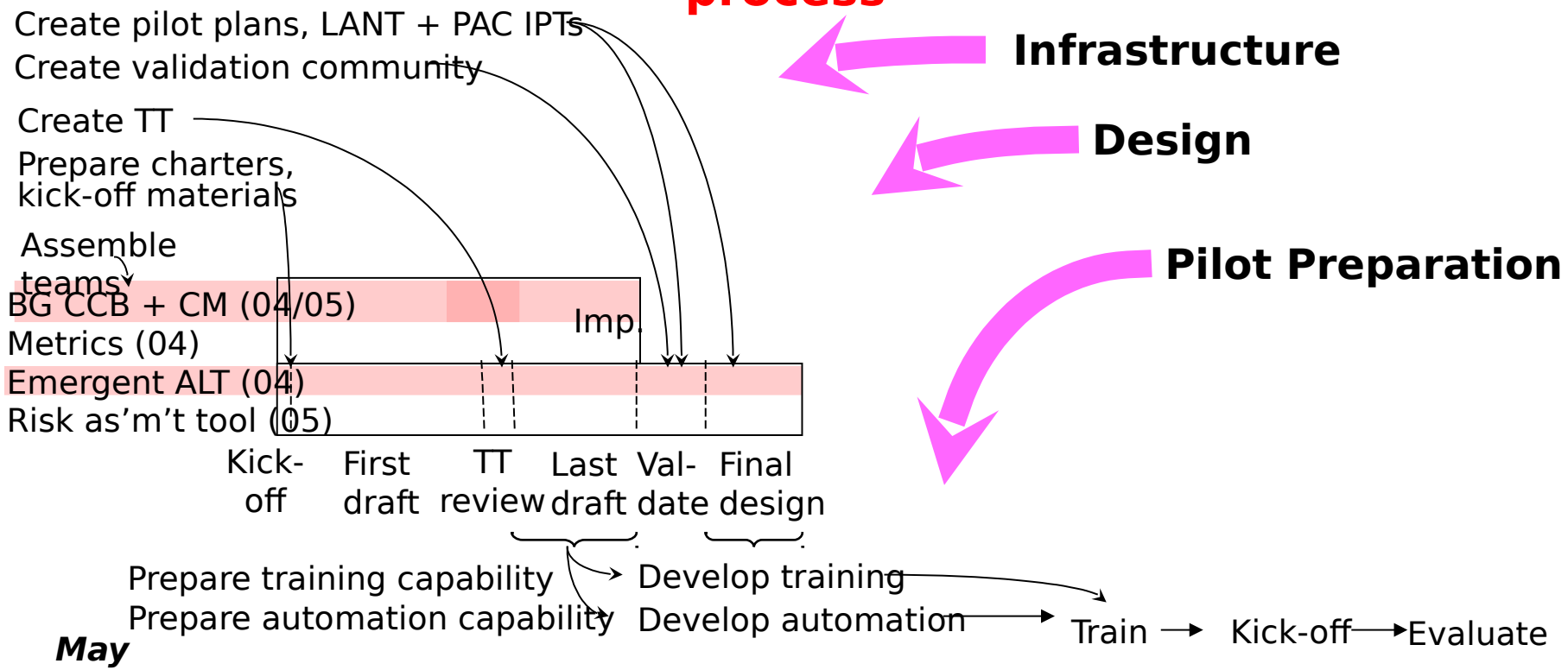
CPF N43	RADM Taylor	FLT Maint Officer
	CAPT L Howard	Regional Maint
	CAPT M Moss	Ship Maint
CPF N6	CAPT Traverso	C4I
SURFPAC N43	CAPT Siedband	Maint Officer
AIRPAC N43	CAPT Burrill	Maint Officer
	Randy Blankenship	Maintenance
AIRPAC N6	CDR C. Baldwin	C4I
SSC SD D60	Charles Moussa	Deputy Flt. Install

CINCLANT

CLF N43	RADM Knapp	FLT Maint. Officer
	Mr. Cole	Deputy Dir FLT Maint
	CAPT Schaum	Regional Maint Dir
	LCDR Miller	Combat Systems
	LCDR Tomaiko	Maintenance
CLF N6	Glen Palmer	C4I
SURFLANT N434	LCDR Storm	Type Desk
3	CDR Reedy	Type Desk
1	CAPT Dew	Maint Officer
2	CDR Breslin	Maint Officer
SURFLANT N6	CAPT Garrett	Combat Sys/C4I
	CAPT Garland	Combat Sys/C4I
SURFLANT N65	CDR Lewellyn	Combat Sys/C4I
SUBLANT N42	CDR Cofield	Combat Systems
AIRLANT N43	CDR Lewia	Maintenance
FTSCLANT	Milton Oakley	FMP

Phased Implementation

CCB, BG CM, Risk Assessment Tool, Emergent ALT process



BG (TCD)	May	June	July	August	September	Jan
Connie (9/00)		22			19	
Enterprise (9/00)		22			19	
Vinson (12/00)		25			22	
Roosevelt (1/01)		26			23	
Stennis (7/01)		32			28	
Washington (10/01		33			30	
Lincoln (12/01)		36			33	
Truman (2/02)		38			35	